

FAMINE EARLY WARNING SYSTEMS NETWORK

Zimbabwe

Monthly Climate and Weather

17 April 2025

Highlights

- El Niño Southern Oscillation (ENSO)-neutral conditions returned over the equatorial Pacific Ocean during March 2025. Below-average sea-surface-temperatures (SSTs) weakened in the central and east-central Pacific, while near-average to above-average SSTs persisted in the eastern and far western Pacific.
- Based on dynamical models, ENSO-neutral is favored during the Northern Hemisphere summer, with over 50% chance through August – October 2025.
- During March 2025, 25 to 75mm total rainfall was recorded in northern, western, eastern and southeastern parts of Zimbabwe. Most parts of central, northeastern and southwestern Zimbabwe received 10 to 50mm rainfall.
- Maximum temperatures were 1 to 3°C above-average in many parts of Zimbabwe in March 2025. Likewise, minimum temperatures were 1 to 2°C above average in parts of western and southeastern Zimbabwe.
- The Standardized Precipitation Index (SPI) analysis for March 2025 indicated drier than average conditions in many parts of Zimbabwe, and wetter than average conditions in some parts of southeastern Zimbabwe.
- Based on the North American Multi-Model Ensemble (NMME) models, there is a slight to moderate tilt in the odds to favor below-average rainfall over areas of southeastern Zimbabwe during May – July 2025.
- Based on the NMME models, there is a slight to moderate tilt in the odds to favor above-average temperatures over much of Zimbabwe during May – July 2025.

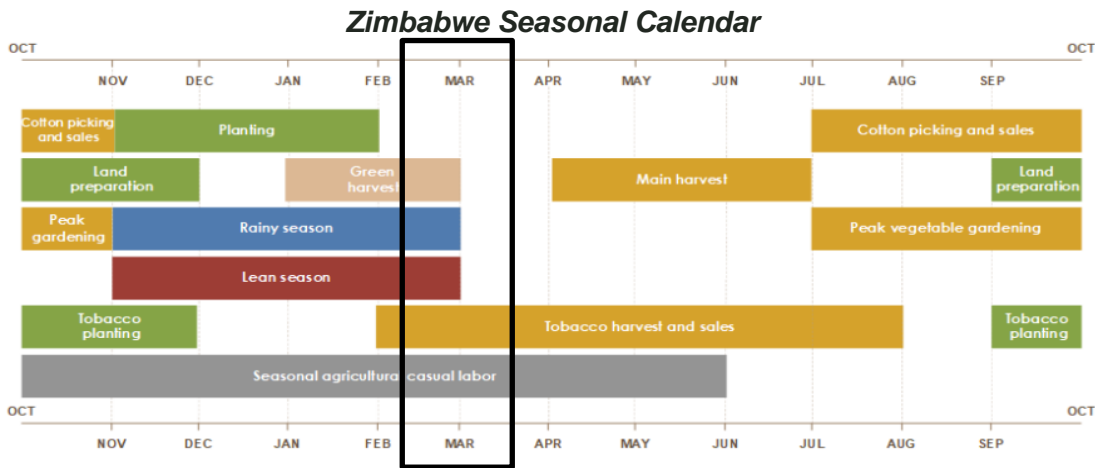


Figure 1: Seasonal calendar for Zimbabwe. Source: FEWS NET

Current Climate Modes and Teleconnections

- During March 2025, ENSO-neutral conditions returned over the equatorial Pacific Ocean, with weakening below-average SSTs in the central and east-central equatorial Pacific and persisting near-average to above average SSTs in the eastern and far western Pacific.
- Based on dynamical models, ENSO-neutral is favored during the Northern Hemisphere summer, with over 50% chance through August-October 2025 (**Fig. 2**).
- Based on historical record, La Niña episodes are typically associated with [near-average precipitation conditions in Zimbabwe during the April-May-June \(AMJ\) season](#). La Niña events are also associated [with cooler than average conditions across Zimbabwe](#) during the AMJ season (**Figure S1**).

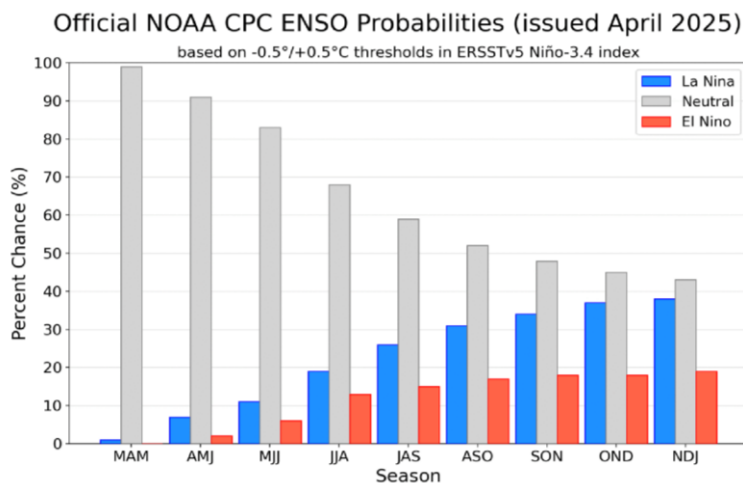


Figure 2: Official ENSO probabilities for the Niño 3.4 Sea surface temperature index (5°N-5°S, 120°W-170°W). Source: NOAA/NCEP

Extreme Events

- [Tropical Cyclone JUDE made landfall in northern Mozambique on 10 March](#), and brought torrential rainfall and winds up to 120km per hour that led to flooding in many parts of Mozambique. Cyclone JUDE also brought moderate to heavy rainfall in some parts of northern and eastern Zimbabwe.
- The past month's increased rainfall has triggered flooding over many areas of southern Africa, including Zimbabwe in March 2025.
- [There were no notable fire alerts in all provinces of Zimbabwe over the past 4 weeks.](#)
- Stronger-than-average southeasterly winds at lower level were observed across Zimbabwe over the past 30 days.

Rainfall/Precipitation

Past 3 months (January 2025 – March 2025):

- **Totals:** Most parts of Zimbabwe recorded 300 to 500mm total rainfall, while parts of southeastern Matabeleland South, southern and eastern Masvingo and central Matabeleland North received 200 to 300mm total rainfall (**Fig. 3a**). Higher amounts (500 to 750mm) were observed in some regions in eastern Mashonaland East and northeastern Matabeleland North. **Table 1** shows the average rainfall for provinces of Zimbabwe.
- **Anomalies:** The observed rainfall was 25 to 100mm below average in parts of northern and western Zimbabwe, with the largest deficit up to 200mm in some parts of central Mashonaland West and central Matabeleland North (**Fig. 3b**). Rainfall was above average by 50 to 200mm in parts of central, southern, southeastern and northeastern Zimbabwe.

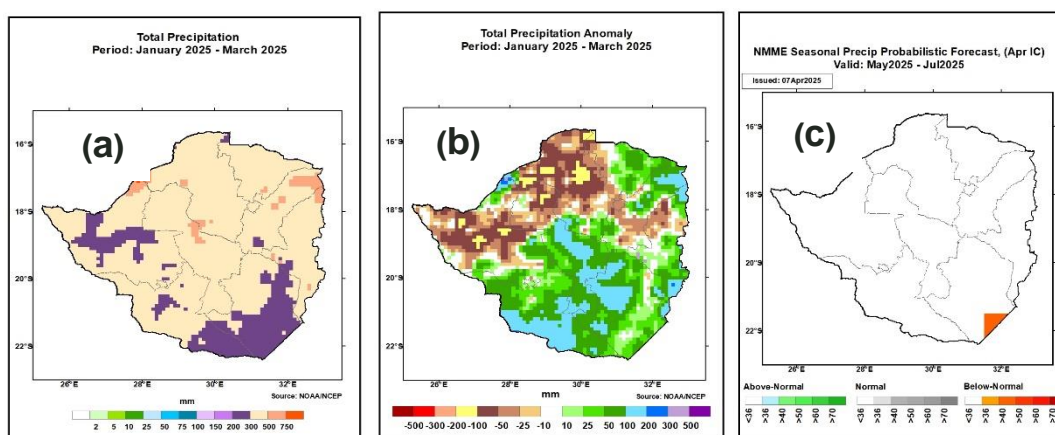


Figure 3: Satellite estimates of rainfall (RFE2) for the past 3 months (January 2025 – March 2025). (a) Total accumulation of precipitation and (b) rainfall anomaly. (c) Seasonal rainfall forecast for May - July2025. **Source: NOAA/NCEP**

Past 1 Month (March 2025):

- **Totals:** During March, 25 to 75mm total rainfall was recorded in northern, western, eastern and southeastern parts of Zimbabwe, with higher amounts of 75mm to locally up to 150mm

in some parts of northwestern Matabeleland North and southern Manicaland (**Fig. 4a**). Most parts of central, northeastern and southwestern Zimbabwe received 10 to 50mm rainfall during the past month (**Fig. 4a**).

- **Anomalies:** Rainfall was below average by 25 to 100mm in many parts of Zimbabwe except over some parts of southern Manicaland and pockets of regions in the far northwestern Matabeleland North, which depicted above-average rainfall between 10 to 50mm (**Fig. 4b**).

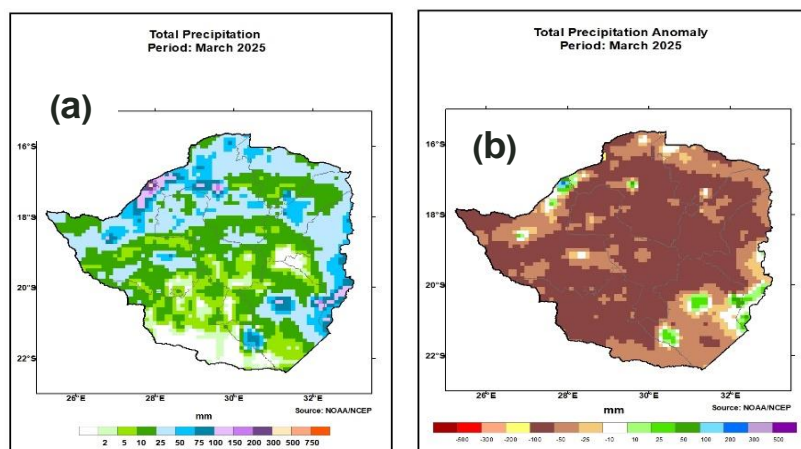


Figure 4: Satellite estimates of rainfall (RFE2) for March 2025. (a) Monthly total accumulation of rainfall and (b) monthly rainfall anomaly. **Source: NOAA/NCEP**

Monthly and Seasonal Forecasts (May 2025 and May – July 2025):

- **Monthly:** Based on the NMME models, there is a slight tilt in the odds to favor [below-average](#) rainfall over local areas of southern Zimbabwe during May 2025.
- **Seasonal:** Based on the NMME models, there is a slight to moderate tilt in the odds to favor below-average rainfall over local areas of southeastern Zimbabwe during May – July 2025 (**Fig. 3c**). **Table 1** gives the total climatological/average accumulation for 3-month forecast period and forecasted rainfall anomaly for the provinces of Zimbabwe.

Table 1: The total observed rainfall and anomaly from climatology for the past 1- and 3-months for the provinces of Zimbabwe. For seasonal forecast, the total climatological accumulation for the 3-month forecast period and forecasted rainfall anomaly are shown.

| Location | Past 3-Month | | Past 1-Month | | Seasonal Forecast | |
|---------------------|--------------|--------------|--------------|--------------|-------------------|--------------|
| | Total (mm) | Anomaly (mm) | Total (mm) | Anomaly (mm) | Climatology (mm) | Anomaly (mm) |
| Mashonaland West | 396 | -40 | 41 | -62 | 11 | -2 |
| Mashonaland Central | 420 | 13 | 31 | -48 | 15 | -3 |
| Mashonaland East | 407 | 30 | 24 | -61 | 27 | -4 |
| Matabeleland North | 345 | -15 | 24 | -47 | 8 | -2 |

| | | | | | | |
|--------------------|-----|-----|----|-----|----|----|
| Midlands | 396 | 44 | 19 | -61 | 17 | -2 |
| Manicaland | 383 | 35 | 46 | -39 | 59 | -6 |
| Harare | 367 | -33 | 33 | -68 | 20 | -3 |
| Masvingo | 300 | 65 | 27 | -34 | 41 | -4 |
| Matabeleland South | 320 | 81 | 7 | -53 | 19 | -4 |

Temperature

Past 3 months (January 2025 – March 2025):

- **Maximums:** Maximum temperatures were 1 to 2°C above average in parts of northern, northeastern, central, eastern, southwestern, and southeastern Zimbabwe, with the largest anomalies of 2 to 3°C occurring in some parts of northern and central-eastern Zimbabwe (**Fig. 5a, Table 2**). Maximum temperatures were between 25 to 35°C across much of Zimbabwe.
- **Minimums:** Minimum temperatures were 1 to 2°C above average in central, southeastern, and some parts of the far western and northeastern Zimbabwe (**Fig. 5b**). Minimum temperatures remained between 15 to 25°C in many parts of Zimbabwe.

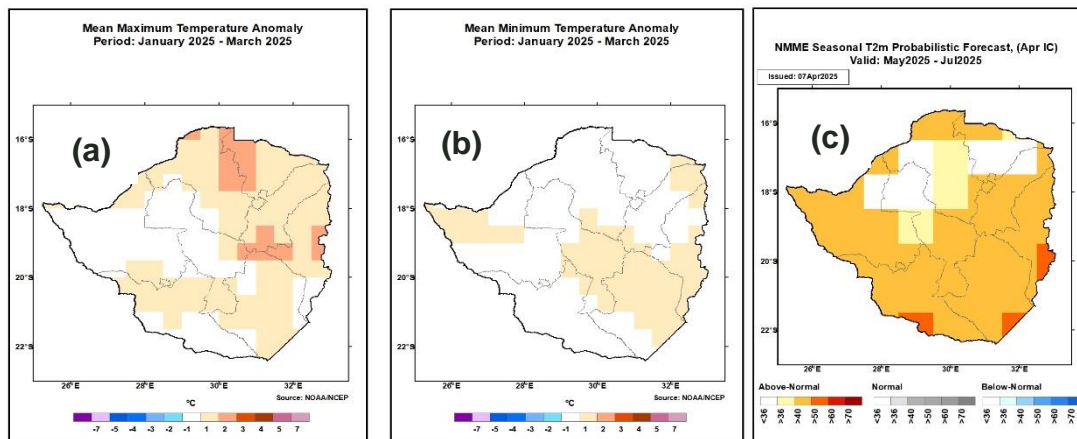


Figure 5: Spatial structure of maximum and minimum temperature anomalies for January 2025 – March 2025: **(a)** maximum temperature anomaly and **(b)** minimum temperatures anomaly. **(c)** Seasonal temperature forecast for May – July 2025. **Source: NOAA/NCEP**

Past 1 Month (March 2025):

- **Maximums:** Maximum temperatures were 1 to 2°C above average in many parts of Zimbabwe, with the largest anomaly of up to 3°C in northern and some parts of central and southwestern Zimbabwe (**Fig. 6a; Table 2**). Maximum temperatures were between 25 to 35°C in many parts of Zimbabwe.

- **Minimums:** Minimum temperatures were 1 to 2°C above average in parts of western and southeastern Zimbabwe (**Fig. 6b**). Minimum temperatures were between 15 to 25°C in many parts of Zimbabwe.

Monthly and Seasonal Forecasts (May 2025 and May – July 2025):

- **Monthly:** Based on the NMME models, there is a slight to moderate tilt in the odds to favor [above-average](#) temperatures in parts of northern, southeastern and far western Zimbabwe during May 2025.
- **Seasonal:** Based on NMME forecasts, there is a slight to moderate tilt in the odds to favor above-average temperatures across much of Zimbabwe during May – July 2025 (**Fig. 5c, Table 2**).

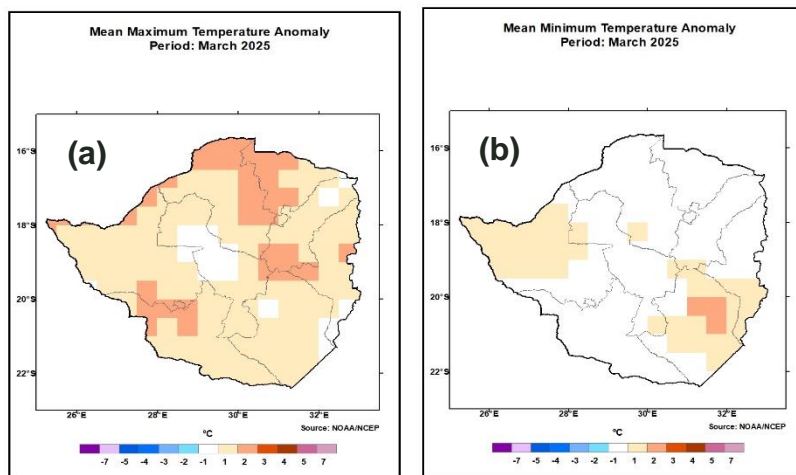


Figure 6: Spatial structure of average March 2025 (a) maximum temperature anomaly and (b) minimum temperatures anomaly. **Source: NOAA/NCEP**

Table 2: Average maximum temperature and deviations from climatology for the past 1- and 3-months for the provinces of Zimbabwe. For seasonal forecast, the climatological/average temperatures values and forecasted temperature anomalies are provided.

| Location | Past 3-Month | | Past 1-Month | | Seasonal Forecast | |
|---------------------|--------------------------|----------------------|--------------------------|----------------------|------------------------------|---------------------|
| | Max/Min Temperature (°C) | Max/Min Anomaly (°C) | Max/Min Temperature (°C) | Max/Min Anomaly (°C) | Temperature Climatology (°C) | Above/Below Average |
| Mashonaland West | 29.5/19.4 | 1.5/0.3 | 30.0/19.2 | 2.0/0.7 | 16.8 | 0.6 |
| Mashonaland Central | 29.6/19.6 | 1.9/0.4 | 29.8/19.1 | 2.1/0.5 | 15.9 | 0.5 |
| Mashonaland East | 28.1/18.2 | 1.6/0.9 | 27.9/17.0 | 1.5/0.4 | 15.2 | 0.4 |
| Matabeleland North | 29.2/19.5 | 0.7/0.8 | 29.9/19.1 | 1.5/1.2 | 16.9 | 0.7 |
| Midlands | 28.9/19.0 | 0.9/0.9 | 29.1/18.3 | 1.3/0.9 | 15.3 | 0.4 |

| | | | | | | |
|---------------------------|-----------|---------|-----------|---------|------|-----|
| Manicaland | 27.6/18.3 | 1.7/1.1 | 27.0/17.3 | 1.5/0.8 | 15.7 | 0.5 |
| Harare | 26.7/16.9 | 1.3/0.6 | 26.8/15.8 | 1.6/0.1 | 14.4 | 0.4 |
| Masvingo | 31.3/21.0 | 1.1/1.2 | 31.0/20.4 | 1.4/1.3 | 16.3 | 0.6 |
| Matabeleland South | 30.1/18.7 | 1.1/0.4 | 30.2/17.5 | 1.8/0.1 | 15.7 | 0.5 |

Flooding and Areas of Inundation

- Large amount of rainfall was recorded in many parts of Southern Africa during the last few weeks that led to flooding over many areas of Southern Africa, including Zimbabwe in March.

Drought and Dryness

The Standardized Precipitation Index (SPI) is used to characterize meteorological drought. SPI compares the precipitation over a specific period of time with the climatology from that same period. Therefore, the SPI values can be thought of as the number of standard deviations the observed anomaly deviates from the climatology. The 1-month SPI values are a good representation of the monthly precipitation anomaly as well as the soil moisture and vegetation health. The 3-month SPI values are a good representation of seasonal precipitation anomalies.

Past 3 Months (January 2025 – March 2025):

- The SPI analysis for the past 3 months indicated drier than average conditions in western, southwestern, and parts of central Zimbabwe (**Fig. 7a**). Wetter than average conditions existed in southern and some parts of northern and northeastern Zimbabwe.

Past 1 Month (March 2025):

- The SPI analysis for March 2025 indicated drier than average conditions in many parts of western, central, southwestern, southern, northwestern, northern and northeastern Zimbabwe (**Fig. 7b**). The SPI analysis indicated wetter than average conditions in some parts of southeastern Zimbabwe.

Current/Forecast (02 April 2025 – 28 April 2025):

- The SPI forecast suggests wetter than average conditions in Manicaland, eastern Mashonaland East, western Masvingo, and central and eastern parts of Matabeleland South provinces of Zimbabwe (**Fig. 7c**). The SPI forecast suggests drier than average conditions in some parts of western Matabeleland North and northern and central Mashonaland West provinces of Zimbabwe.

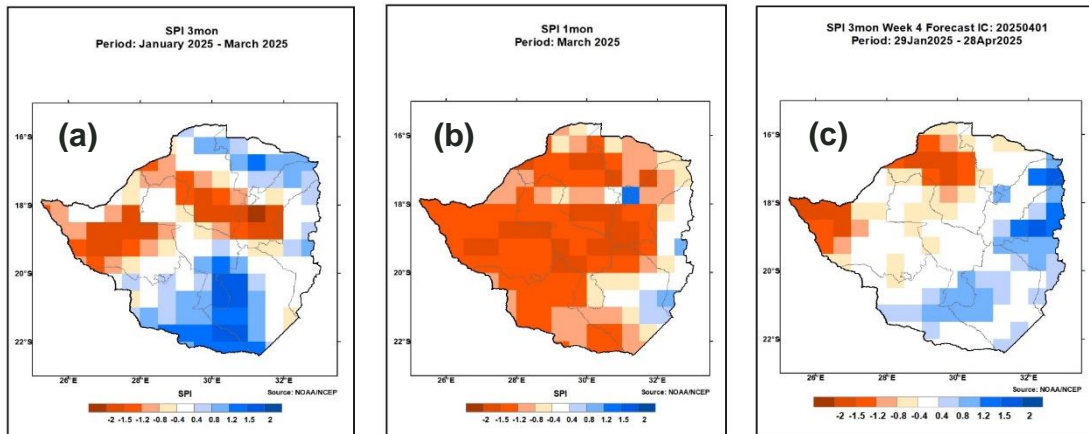


Figure 7: Spatial structure of the Standardized Precipitation Index (SPI) for **(a)** January 2025 - March 2025, **(b)** March 2025, and **(c)** Spatial structure of SPI constructed from observations for 29 January 2025 to 01 April 2025 and 4 weeks forecast ending on 28 April 2025. **Source:** NOAA/NCEP

Normalized Difference Vegetation Index (NDVI)

NDVI is a measure of vegetation health, where high NDVI values are indicative of healthy, dense vegetation, and low NDVI values are indicative of less or no vegetation. Therefore, negative NDVI anomalies suggest deteriorated vegetation health relative to the long-term average.

Past 1 Decadal period (21-31 March 2025):

- From 21 – 31 March 2025, the observed NDVI is 60-90% of the long-term average in some parts of western and northern Zimbabwe, and 105 to locally up to 140% of the long-term average in many parts of Matabeleland South and Masvingo, western Manicaland, parts of northern, central and southern Midlands, eastern Matabeleland North, and many parts of Mashonaland East (**Fig. 8**).

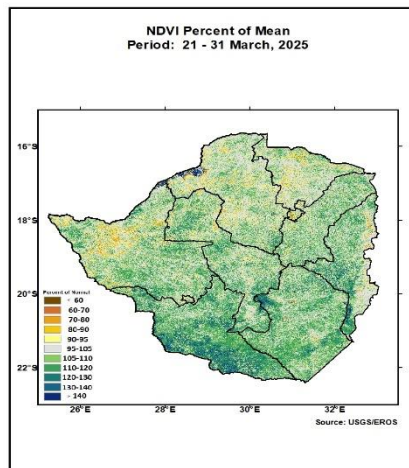


Figure 8: Spatial structure of the Normalized Difference Vegetation Index (NDVI) for period 21-31 March, 2025. **Source:** USGS/EROS

Water Requirement Satisfaction Index (WRSI)

- During the third dekad (10-day period) of March 2025, maize crops conditions were “good” in parts of northern, central and eastern regions of Zimbabwe according to the [WRSI analysis](#).

GEOGLAM Crop Monitor

- In Zimbabwe, [harvesting of main season cereals is now underway, with favourable conditions](#). Water levels of the Kariba dam remain critically low, which continues to disrupt power supply in Zimbabwe.

Additional Resources

- https://www.cpc.ncep.noaa.gov/products/international/africa/africa_hazard.pdf
- <https://www.cpc.ncep.noaa.gov/products/international/globalweatherhazard/Current.pdf>
- <https://www.cpc.ncep.noaa.gov/products/international/africa/expert/week1.jpg>
- <https://www.cpc.ncep.noaa.gov/products/international/africa/expert/week2.jpg>
- <https://www.cpc.ncep.noaa.gov/products/international/africa/expert/week34.jpg>

Annex

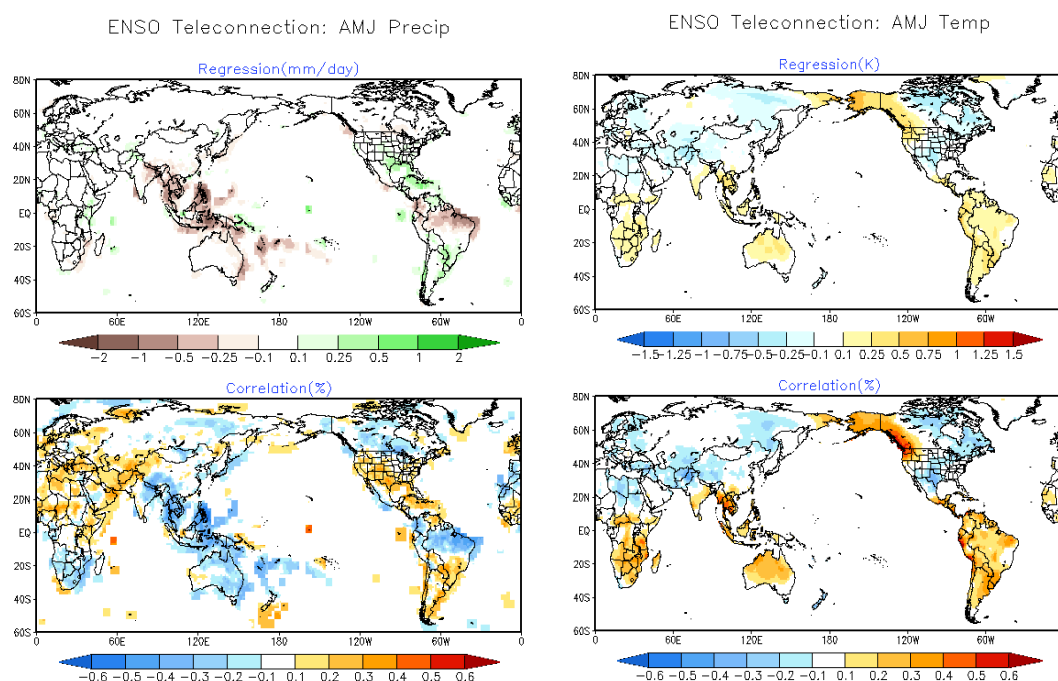


Figure S1: For three month season (April-May-Jun; AMJ), precipitation and temperature anomalies are regressed onto the standardized Niño-3.4 index (upper panel). In the bottom panel, the correlation is calculated between Niño-3.4 and the anomalies.